

THAT WHICH IS CLAIMED IS:

1. An electrical connector for use with a conductor, the electrical connector comprising:
  - a) a housing defining a port, the port including:
    - an entrance opening;
    - an exit opening; and
    - a conductor passage extending between and communicating with the entrance and exit openings, the conductor passage being adapted to receive the conductor therethrough;
  - b) sealant disposed in the conductor passage, the sealant being adapted for insertion of the conductor therethrough such that the sealant provides a seal about the inserted conductor; and
  - c) a penetrable closure wall extending across the conductor passage.
2. The electrical connector of Claim 1 wherein the closure wall is operative to retain the sealant in the passage.
3. The electrical connector of Claim 1 wherein the closure wall is frangible.
4. The electrical connector of Claim 3 wherein the closure wall includes a membrane substantially entirely sealing the passage.
5. The electrical connector of Claim 1 wherein the closure wall includes a plurality of discrete flaps.
6. The electrical connector of Claim 1 wherein the closure wall defines a hole adapted to receive the conductor.
7. The electrical connector of Claim 6 wherein the hole has an inner diameter smaller than an outer diameter of the conductor.

8. The electrical connector of Claim 1 wherein the closure wall tapers inwardly along a direction from the entrance opening to the exit opening.

9. The electrical connector of Claim 1 wherein the closure wall has a thickness of no more than 0.25 inch.

10. The electrical connector of Claim 1 wherein the closure wall is formed of a polymeric material.

11. The electrical connector of Claim 1 wherein at least a portion of the sealant is disposed in the conductor passage between the closure wall and the exit opening.

12. The electrical connector of Claim 1 wherein at least a portion of the sealant is disposed in the conductor passage between the closure wall and the entrance opening.

13. The electrical connector of Claim 1 wherein the closure wall is integrally molded with the housing.

14. The electrical connector of Claim 1 including an insert member separately formed from the housing and positioned in the conductor passage, wherein the closure wall forms a part of the insert member.

15. The electrical connector of Claim 14 wherein the housing includes a ledge adapted to locate the insert member in the conductor passage.

16. The electrical connector of Claim 15 further including a conductor member positioned in the housing such that the insert member is cooperatively secured in the conductor passage by the connector block and the ledge.

17. The electrical connector of Claim 1 including a second penetrable closure wall extending across the conductor passage such that the first and second closure walls define a sealing region therebetween, wherein at least a portion of the sealant is disposed in the sealing region.

18. The electrical connector of Claim 17 wherein the first and second closure walls are operative to retain the sealant in the sealing region.

19. The electrical connector of Claim 17 including an insert member separately formed from the housing and positioned in the conductor passage, wherein at least one of the first and second closure walls forms a part of the insert member.

20. The electrical connector of Claim 19 wherein the first closure wall is integrally formed with the housing and the second closure wall forms a part of the insert member.

21. The electrical connector of Claim 20 wherein:  
each of the first and second closure walls forms a part of the insert member; and  
the insert member defines an insert passage including the sealing region.

22. The electrical connector of Claim 17 wherein at least one of the first and second closure walls is frangible.

23. The electrical connector of Claim 17 wherein at least one of the first and second closure walls includes a plurality of discrete flaps.

24. The electrical connector of Claim 17 wherein at least one of the first and second closure walls defines a hole adapted to receive the conductor.

25. The electrical connector of Claim 1 wherein the sealant is a gel.

26. The electrical connector of Claim 25 wherein the gel is adapted to be elongated and elastically deformed by insertion of the conductor into the conductor passage.

27. The electrical connector of Claim 1 wherein:

a) the housing defines a second port and an interior cavity, the second port including:

a second entrance opening;

a second exit opening; and

a second conductor passage extending between and communicating with the second entrance opening and the second exit opening, the second conductor passage being adapted to receive a second conductor therethrough;

b) sealant is disposed in the second conductor passage, the sealant being adapted for insertion of the second conductor therethrough such that the sealant provides a seal about the inserted second conductor;

c) a second penetrable closure wall extends across the second conductor passage;

d) each of the first and second ports communicates with the interior cavity; and

e) the electrical connector includes:

an electrically conductive busbar conductor member disposed in the interior cavity; and

at least one holding mechanism to selectively secure each of the conductors to the busbar conductor member for electrical contact therewith.

28. A method for forming a connection between an electrical connector and a conductor, the electrical connector including a housing defining a port, the port including an entrance opening, an exit opening and a conductor passage extending between and communicating with the entrance and exit openings, the electrical connector further including sealant disposed in the conductor passage

and a penetrable closure wall extending across the conductor passage, the method comprising the steps of:

- a) inserting the conductor through the conductor passage and the sealant disposed therein such that the sealant provides a seal about the conductor; and
- b) penetrating the closure wall with the conductor.

29. The method of Claim 28 wherein the closure wall is frangible and the step of inserting the conductor through the conductor passage includes puncturing the closure wall.

30. The method of Claim 28 wherein the closure wall includes a plurality of discrete flaps and the step of inserting the conductor through the conductor passage includes deflecting at least one of the flaps.

31. The method of Claim 28 further including penetrating a second closure wall with the conductor, wherein the second closure wall extends across the conductor passage such that the first and second closure walls define a sealing region therebetween, and wherein the sealant is disposed in the sealing region.

32. An electrical connector for use with a conductor, the electrical connector comprising:

- a) a housing defining a port, the port including:
  - an entrance opening;
  - an exit opening; and
  - a conductor passage extending between and communicating with the entrance and exit openings, the conductor passage being adapted to receive the conductor therethrough;
- b) a sleeve member disposed in the conductor passage and defining a sleeve passage; and
- c) sealant disposed in the sleeve passage, the sealant being adapted for insertion of the conductor therethrough such that the sealant provides a seal about the inserted conductor.

33. The electrical connector of Claim 32 wherein the sleeve member includes a projection extending into the sleeve passage to increase surface contact between the sleeve member and the sealant in the sleeve passage.

34. The electrical connector of Claim 32 including a penetrable closure wall extending across the sleeve passage.

35. The electrical connector of Claim 34 including a second penetrable closure wall extending across the sleeve passage such that the first and second closure walls define a sealing region therebetween, wherein at least a portion of the sealant is disposed in the sealing region.

36. The electrical connector of Claim 34 wherein the closure wall is formed of a polymeric material.

37. The electrical connector of Claim 32 wherein the sleeve member has a wall thickness of no greater than 0.125 inch.

38. The electrical connector of Claim 37 wherein the sleeve member has a wall thickness of between about 0.015 and 0.100 inch.

39. The electrical connector of Claim 32 wherein the sleeve member is formed of a polymeric material.

40. The electrical connector of Claim 32 wherein the sealant is a gel.

41. The electrical connector of Claim 40 wherein the gel is adapted to be elongated and elastically deformed by insertion of the conductor into the conductor passage.

42. A method for providing a seal to an electrical connector, the electrical connector including a housing defining a port, the port including an

entrance opening, an exit opening, and a conductor passage extending between and communicating with the entrance and exit openings, the conductor passage being adapted to receive a conductor therethrough, the method comprising:

inserting an insert member into the conductor passage, the insert member including:

a sleeve member defining a sleeve passage; and

sealant disposed in the sleeve passage, the sealant being adapted for insertion of the conductor therethrough such that the sealant provides a seal about the inserted conductor.

43. The method of Claim 42 including the step of securing the sleeve member in the conductor passage.